

SUMMARY

A. C. Nielsen Company is the only national television program audience measurement (i.e., ratings) service that is currently available to television advertisers, their agencies, networks, program syndicators, and stations.

In order to derive its ratings for particular television programs, Nielsen must verify the actual broadcasts of such programs by stations whose viewership is being measured.

Nielsen's own program broadcast verification system, known as "AMOL" (for "Automated Measurement of Lineups") is the only program broadcast verification service that Nielsen will accept for purposes of Nielsen's ratings reports.

Because the television advertising industry cannot function without ratings, because Nielsen is the only source of such ratings, and because Nielsen will only accept its own AMOL service for the purpose of deriving its ratings, AMOL therefore is a service which the industry cannot do without.

For fifteen years, AMOL has been provided by inserting codes into the Vertical Blanking Interval that are then "read" by Nielsen decoders in order to identify programming. Other services, such as commercial identification and verification

services that also rely upon codes inserted into the television signal, have developed on Line 22 of the active video, where they could function without risk of displacement by AMOL.

Television program syndicators, advertisers, agencies, and others have encouraged the development of the new commercial identification and verification technologies, as they provide a service that is different from, and complementary to, Nielsen's AMOL.

Likewise, the Commission's own statutory mandate, in Section 7 of the Communications Act of 1934, as amended, is to encourage new technologies such as those provided by the two leading commercial identification and verification services, Airtrax and VidCode, Inc.

* * *

In July, 1989, Nielsen requested authority from the Commission to move a part of its AMOL system, that which serves syndicated programs, to Line 22 (while continuing to use Line 20 for the AMOL service for network programming).

Because the industry cannot function without AMOL, Nielsen's request for permission to occupy Line 22 threatens to displace the newer commercial identification and verification

technologies which have grown up on that line pursuant to Commission authorizations that were granted, in part, in order to enable those technologies to develop without having to vie with AMOL for the use of Line 20.

The Commission is urged, by Airtrax in concert with leading representatives of the television advertising industry, their agencies, program syndicators, and others, to resolve this proceeding in a manner that will afford continued co-existence of AMOL, as a necessary part of ratings, and the new commercial identification and verification services.

Of the various strategies for preserving co-existence that have been considered in this proceeding, Airtrax's Comments demonstrate that the preferred strategy is for Nielsen to solve its limited problem in the Vertical Blanking Interval, and continue to provide its AMOL service for syndicated programs on Line 20.

As an alternative, Nielsen could be allowed to relocate its AMOL service for syndicated programs to Line 23 of the active video on a trial basis, in conjunction with the initiation of a rule making proceeding to adopt rules of general guidance for the future development and use of the active video.

TABLE OF CONTENTS

Summary	i
Table of Contents	iv
Nielsen's AMOL System	2
Commercial Identification Systems on Line 22	3
AMOL and Commercial Identification: Complementary Services	12
Preserving Complementary Services	14
Strategies for Preserving Co-Existence	18
Nielsen Has Not Established a Need to Move AMOL from Line 20	18
Allow Nielsen to Move AMOL for Syndicated Programs to Line 23 of the Active Video on a Trial Basis	21
"Interval Coding" on Line 22	23
Alternate-Field Operation on Line 22	28
Conclusion	30

BEFORE THE
Federal Communications Commission
WASHINGTON, D. C. 20554

In the Matter of)	
)	
REQUEST OF A. C. NIELSEN COMPANY)	DA 89-1060
FOR PERMISSIVE AUTHORITY TO USE)	
LINE 22 OF THE ACTIVE PORTION OF)	
THE TELEVISION BROADCAST VIDEO)	
SIGNAL FOR TRANSMITTING ENCODED)	
PROGRAM IDENTIFICATION INFORMATION.)	

To: The Commission

COMMENTS OF AIRTRAX IN RESPONSE TO
COMMISSION PUBLIC NOTICE

COMES NOW Airtrax, a general partnership organized under the laws of the State of California ("Airtrax"), by its attorney, and hereby respectfully submits these Comments in response to the Commission's *Public Notice*, DA 89-1060, released on September 1, 1989, entitled, "A. C. Nielsen Company Requests FCC Approval to Move its Automated Measurement of Lineup System ("AMOL") From Line 20 in the Vertical Blanking Interval to Line 22 of the Active Television Video Signal; Pleading Cycle Established."

Nielsen's AMOL System

1. Since the 1970's, A. C. Nielsen Company ("Nielsen") has offered to its clients, as an integral part of Nielsen's national television program audience measurement or "ratings" reports, a television program broadcast verification service known as "Automated Measurement of Lineups," or "AMOL." AMOL provides a method for verifying that a particular television station's broadcasts on any given day were in conformance with, or at variance from, the previously-published broadcast schedule for that station (or for a television network affiliated with that station).

2. Since its inception, Nielsen's AMOL has operated on Line 20 of the Vertical Blanking Interval (the "VBI"), initially pursuant to special authorizations from the Commission, and more recently pursuant to Section 73.682(a)(21) of the Commission's Rules and Regulations, 47 C.F.R. Section 73.682(a)(21) (1988). The AMOL service involves the insertion on Line 20 of codes that include certain identification information. When a television station transmits programming with AMOL codes inserted into Line 20 of the transmission's VBI, those codes can be "read" by special Nielsen decoders that are installed to monitor that station's transmissions.

3. AMOL was specifically developed for the purpose of identifying national television network programming "feeds" from a network to its affiliated stations. The AMOL codes identify the network feed's point of origination, the date of the feed, and the time of day of the feed in a continuous stream. A separate Nielsen decoder is installed to monitor each network-affiliated station's transmissions.^{1/} If the decoder reads AMOL codes on Line 20 of the station's transmissions, Nielsen can verify that that particular station broadcast (or "cleared") its affiliated network's feeds during that portion of the day when the codes were identified as being present in the station's transmissions. If no AMOL codes are being read by the Nielsen decoder, Nielsen can establish that the station was not broadcasting its affiliated network's feeds during that portion of the day when the codes were not being read. In this manner, Nielsen can establish the extent of each network-affiliated station's clearance of its network's programs.

^{1/} There are two methods by which Nielsen's AMOL decoders monitor station transmissions. Pursuant to the so-called "radiated" method of monitoring, a decoder is installed within the station's reliable service area and monitors the station's transmissions by picking up the station's signal off the air. Under the so-called "in-station" method of monitoring, the decoder is installed in the premises of the station and monitors the station's programming prior to its broadcast. See discussion in Paragraphs 7 and 24, below.

4. Nielsen also provides the only national television program audience measurement or ratings service, using Nielsen "Peoplemeter" devices to record viewership of television stations by persons in homes in which the Peoplemeters have been placed. The Peoplemeters, however, only provide data concerning the viewership of a particular television station at any given time on any given day. By combining the Peoplemeter-derived station viewership data with the AMOL-derived network program clearance data, Nielsen is in a unique position to provide to its national television network clients and to its national television network advertiser clients information regarding audience levels for specific network programs on a nationwide basis (*i.e.*, ratings).

5. In early 1988, Nielsen decided to extend its network-feed AMOL service to include syndicated programs (*i.e.*, those television programs that are sold to individual television stations, both network-affiliated stations and non-network-affiliated "independent" stations, and that are distributed to stations by means other than network delivery). Line 20 of syndicated programming is AMOL-encoded in the following manner. The program-content segments of an episode of a syndicated show are first recorded, and a "master" tape is created with "black slugs" inserted into the tape at various

intervals where commercial advertisements and other forms of promotional announcements will later be placed. The master tape is then delivered to a post-production/duplication "house," which inserts into the black slugs of the master tape (i) those commercial advertisements that have been purchased by a national program advertiser for integration into that episode of the show in question, *i.e.*, so-called "barter" advertisements,^{2/} and (ii) other forms of promotional announcements.^{3/}

^{2/} In a barter transaction, the program syndicator makes a syndicated television program available to a television station for broadcast at no cost (or at a reduced cost) to the station, in return for which the station agrees to broadcast the program with its previously-integrated commercial advertisements intact. The station is allowed by the syndicator to sell one or more commercial advertisements in the course of the program, and thus benefits by receiving programming at little or no cost, with an opportunity to sell its own advertising in the program. The syndicator benefits by being able to market the program to a national television advertiser, with the understanding that the advertiser's commercial messages integrated into that program will be broadcast intact by all stations airing the program.

^{3/} An illustration of a promotional announcement that would typically be integrated into a master tape of a syndicated program is the so-called "promotional-consideration spot." This kind of announcement, which is usually created by the show's producer, normally appears at the end of the show and lasts eight to ten seconds in duration. In a "game" show, for example, a promotional-consideration spot might be used to announce the prizes that have been awarded to the show's game contestants, and the sources of those prizes.

(Footnote continued)

6. Once the master tape of the syndicated program has been thus assembled at the post-production/duplication house, the tape is then duplicated for distribution (by satellite delivery and by courier) to television stations that have contracted to broadcast the program. Immediately prior to, or at the time of the creation of the duplicate tapes, the AMOL codes are "laid down" on Line 20 of the VBI along the entire length of the program. The AMOL codes identify the date and time of the AMOL encoding itself, and the particular post-production/duplication house that created the integrated program. By reference to records maintained by that post-production/duplication house (and supplied to Nielsen by the post-production/duplication house or by the program syndicator), those codes permit each such program to be identified by syndicated program series title and episode number.

(Footnote continued from previous page)

Another illustration of a promotional announcement that might be integrated into the master tape of a syndicated program is the so-called "show commercial." This kind of announcement typically lasts fifteen to thirty seconds in duration and is frequently found at the beginning of the show tape. The show commercial may be an excerpt from the show itself, and is designed to excite viewer interest in the show, in order to increase the show's audience and its ratings (which, of course, increase the value of the commercial advertisements that were purchased for integration in the show).

7. AMOL decoders installed in television stations (the so-called "in-station" method of monitoring) or installed in television markets and tuned to stations (the so-called "radiated" method of monitoring) can then determine, by establishing the presence or absence of AMOL codes on Line 20 of each station's transmissions, the extent to which each such station cleared the AMOL-encoded syndicated program in accordance with that station's previously-published schedule.^{4/} In combination with the Peoplemeter-derived station viewership data in all television markets, the AMOL-derived program clearance verification data enables Nielsen to report to its clients the size of the nationwide audience for a particular episode of a particular syndicated program series (*i.e.*, ratings). Those ratings reports, in turn, determine the payment(s) to be made to program syndicators by national television advertisers in accordance with their advertising contracts.

^{4/} With respect to independent stations, however, Nielsen has commonly installed only a single decoder to scan all such stations in a market, rather than a separate, dedicated decoder for each such station, as Nielsen has done for network-affiliated stations. This has necessarily had an impact upon the level of accuracy of the decoders for independent stations, since a decoder that must scan across several stations will be disadvantaged in comparison to a decoder that is dedicated to monitoring a single station. See discussion at Paragraph 24, below.

8. The present controversy in DA 89-1060 arose when Nielsen approached the Commission in July, 1989 in order to request permission to use Line 22 of the active portion of the television broadcast video signal for encoding AMOL signals for syndicated programming. Nielsen has claimed that some television stations, the precise number of which has never been quantified by Nielsen, are "stripping" (i.e., deleting codes inserted in) the VBI in the course of pre-broadcast taping, editing, and playback of syndicated television programs, thereby preventing the Nielsen decoders from being able to verify program clearance. In order to solve that problem, Nielsen proposes to have its AMOL codes for syndicated programs inserted into the active video, where the incidence of such stripping is deemed to be less likely.

Commercial Identification Systems On Line 22

9. In 1985, two companies--Ad Audit, Inc. ("Ad Audit") and TeleScan, Inc. ("TeleScan")--approached the Commission in order to request permission to use Line 22 of the active video for the insertion of codes into commercial advertisements, for the purpose of identifying such advertisements. Both Ad Audit and TeleScan indicated that they would have preferred to have used Line 20 of the VBI for transmission of their commercial advertisement identification

codes, but they stated that they were unable to persuade sufficient numbers of television stations to accept their codes on Line 20 because ". . . television stations use the VBI for other purposes" Letter to Mr. Erwin G. Krasnow, attorney for Ad Audit, dated July 18, 1985, from the then-Chief of the Commission's Mass Media Bureau, James C. McKinney, at page 1.^{5/}

10. Upon information and belief, Airtrax submits that television stations were unwilling to accept Ad Audit's and TeleScan's commercial advertisement identification codes on Line 20, because of the presence of Nielsen's AMOL codes on Line 20. As indicated in Paragraphs 4 and 7, above, AMOL is a direct contributor to Nielsen's ability to publish its national television ratings reports. Inasmuch as those reports are vital to the commercial functioning of the television industry, stations cannot be expected to reject AMOL in favor of other, preclusive uses of Line 20. Accordingly, Ad Audit and TeleScan were compelled to look outside of the VBI and into the active video for the placement of their respective systems' codes.

^{5/} A copy of the July 18, 1985 letter to Mr. Krasnow is submitted as a part of Appendix B to Nielsen's "Reply to Opposition to Request," filed in this proceeding on August 21, 1989.

11. By separate letters to Ad Audit's attorney and to TeleScan's principal dated July 18, 1985, the Commission's staff granted permissive authorizations to Ad Audit and to TeleScan to utilize Line 22 of the active video for commercial advertisement identification encoding. Ad Audit subsequently filed for protection under the Federal bankruptcy laws, and is no longer in business. TeleScan subsequently transferred its Line 22 authorization to VidCode, Inc. ("VidCode"), which currently offers encoded commercial identification and verification services on Line 22 in competition with Airtrax's system.

12. In 1986, Republic Properties, Inc., an affiliate of Airtrax, also secured the Commission's permissive authorization to use Line 22 of the active portion of the television broadcast video signal to insert commercial advertisement identification and verification codes. That authorization was subsequently transferred to Airtrax.

13. At the present time, the Airtrax overall system is designed to offer a service to advertisers, advertising agencies, and television program syndicators, whereby commercial advertisements and promotional announcements can be encoded with signals inserted on Line 22 that identify the

advertisement or announcement from its beginning to its end; that indicate the presence of stereo and color content; that indicate the presence of foreign-language content ("Secondary Audio Program," or "SAP"); and that provide information establishing how that particular advertisement was originally purchased for broadcast on the television station in question (e.g., as the result of a network "buy," a national "spot" buy, an "unwired-network" buy, a "make-good" for an advertisement that had earlier been scheduled to air but that was pre-empted, etc.).

14. Operationally, Airtrax's service is analogous to Nielsen's AMOL service. Airtrax's technologically-novel decoder computers are installed in a television market and are tuned to monitor each television station in that market separately. The computer continuously reads Line 22 of each such station's transmissions in order to identify, and to verify certain features of, commercial advertisements and promotional announcements that have been encoded with Airtrax's signals. Airtrax can then provide advertisers, agencies, and syndicators specific information concerning each occasion on which all or any part of an Airtrax-encoded advertisement or announcement appeared on a given station, including the time and date of the broadcast of the advertisement or announcement, the duration and content of that advertisement or announcement as broadcast, and how that advertisement was purchased for airing on that station.

AMOL and Commercial Identification: Complementary Services

15. The function and purpose of Airtrax's commercial identification and verification service differs from the function and purpose of Nielsen's AMOL service. As discussed in Paragraphs 3 and 7, above, AMOL is designed to determine whether a particular station's actual broadcasts departed from its affiliated network's programming feed or from its own previously-published program schedule. If a scheduled program aired incompletely, AMOL may not be able to identify specifically what portion(s) of the program were omitted. If a scheduled program did not air at all, current AMOL is not designed to determine whether the commercial advertisements and other forms of promotional announcements (see footnote 3, above) that had been integrated into that program tape at the time of the tape's assembly by the post-production/duplication house were broadcast by the station in the context of another program at another time on the same day or on another day.

16. By contrast, Airtrax's service gives an advertiser, advertising agency, or program syndicator a complete report on every occasion on which a commercial advertisement or promotional announcement appears on a given station, without regard to previously-published schedules and without regard to when and how each such advertisement or

announcement was supposed to have aired. Airtrax's system further reports whether each coded advertisement or announcement was aired in its entirety and with all of its original content features, and how that advertisement was purchased for airing on the station.^{6/}

17. For present purposes, it is sufficient to observe that Nielsen's AMOL service and Airtrax's service are not directly competitive with each other, but rather constitute different and complementary offerings, each of which is used and needed in the television advertising industry. It bears emphasizing that in deciding this case, the Commission is not being asked to referee a dispute between two market competitors.^{7/} Rather, the Commission is called upon to make

^{6/} Another distinguishing feature between Nielsen's AMOL and Airtrax's service is the fact that due to Nielsen's refusal to accept program broadcast verification data supplied by any service other than AMOL, only AMOL is used in preparing Nielsen's ratings reports (which, as noted in Paragraph 4, above, are the only national television program audience measurement reports that are currently available).

^{7/} Nielsen does not contend otherwise. In its August 21, 1989 "Reply to Opposition to Request," filed in this proceeding, Nielsen states, at page 15, footnote 16:

. . . even if Nielsen's and Airtrax's services were competitive (which they are not insofar as Nielsen uses its SID Codes for its national ratings and Airtrax uses its Codes for its commercial transmission verification service),

an efficient and equitable allocation of spectrum resources that will enable two needed complementary services to co-exist, for the overall benefit of the industry.

Preserving Complementary Services

18. In authorizing Ad Audit and TeleScan to utilize a line in the active video four years ago, the Commission's staff established a principle of paramount importance to the present and future of the television advertising industry. That principle is that the community of national television advertisers, their agencies, television networks, program syndicators, and television stations should not be forced by the Commission's allocation of spectrum resources to choose between two needed services, both of which involve the encoding of television transmissions: on the one hand AMOL, being a part of the national television program ratings reports that are essential to the commercial functioning of the industry, and on the other hand the newer commercial advertisement identification and verification services. In 1985, given AMOL's then-established presence on Line 20, the Commission's staff allowed Ad Audit and TeleScan to place their codes on a different line of the television signal, in order that both services could be available to the industry.

19. Nielsen's July 19, 1989 request (the "Request") to the Commission for permission to use Line 22 for purposes of inserting AMOL codes into syndicated television programs threatens the industry's ability to continue enjoying the benefits of both national television program ratings and the comprehensive commercial advertisement identification and verification services that are now emerging. For as long as Nielsen's AMOL service is a part of Nielsen's national television program ratings reports, for as long as Nielsen refuses to accept any program broadcast verification service other than AMOL, and for as long as Nielsen remains the only national television program ratings service, the entire television industry will be compelled to accommodate AMOL; the industry simply cannot function without ratings reports. Accordingly, were AMOL to be extended to Line 22 for syndicated programs, the industry would have no choice but to yield Line 22 (in addition to Line 20)^{8/} to AMOL. The experience of Ad Audit and TeleScan in 1985 can be expected to repeat, wherever AMOL is found.

^{8/} As expressed by Nielsen's representatives at a meeting held on September 7, 1989 in the offices of the Commission under the auspices of the Chief of the Mass Media Bureau (the "September 7 Meeting"), Nielsen does not propose to move its AMOL encoding of television network programming feeds from Line 20 of the VBI. Rather, Nielsen's Request seeks authority to occupy Line 22 of the active video for the purpose of encoding syndicated programs, while retaining Line 20 of the VBI for the purpose of encoding network feeds.

20. Responsible representatives of the national television syndicated programming community,^{9/} the national television advertiser community,^{10/} and the national television advertising agency community^{11/} have urged the Commission in this proceeding to take such steps as may be necessary in order to preserve the existence of both the national television program ratings service of which AMOL is a

^{9/} E.g., Barris Program Sales of Los Angeles, California, which states, in a letter dated September 14, 1989 to the Chief of the Mass Media Bureau:

. . . we suggest that the FCC adopt measures which could insure that electronic reporting services for commercial verification are allowed to co-exist with national ratings services.

^{10/} E.g., The Procter & Gamble Company of Cincinnati, Ohio, which states in a letter dated August 17, 1989 to the Chief of the Mass Media Bureau:

Procter & Gamble is concerned that the granting of this [Nielsen's] [R]equest might restrict the range of services utilizing Line 22 which are available to advertisers.

^{11/} E.g., Ogilvy & Mather of New York, New York, which states in a letter dated September 14, 1989 to the Chief of the Mass Media Bureau:

We have a need for both electronic reporting and commercial verification systems and for national ratings systems. We encourage the Federal Communication Commission to adopt appropriate measures allowing both of these services to co-exist.

part, and the new and novel developing commercial advertisement identification and verification technologies, such as those of Airtrax and VidCode. The Commission's challenge in this proceeding is to allocate available lines of the television signal in such a way that the overall well-being of the industry is fostered by preserving the ability of these complementary services to co-exist.

21. The Commission's challenge in this proceeding is also to fulfill its statutory mandate ". . . to encourage the provision of new technologies and services to the public." Section 7(a) of the Communications Act of 1934, as amended, 47 U.S.C. Section 157(a) (1989). In this case, the commercial advertisement identification and verification services being offered by Airtrax and VidCode did not exist when Nielsen first began offering AMOL. In order to carry out the Congressional charge in Section 7(a) of the Communications Act, the Commission must take care to afford the new and novel commercial identification and verification technologies a supportive and nurturing regulatory environment in which to incubate and develop.

Strategies For Preserving Co-Existence

22. Nielsen Has Not Established A Need to Move AMOL from Line 20. As observed in Paragraph 8, above, the genesis of Nielsen's desire to move its AMOL encoding for syndicated television programs from Line 20 of the VBI to Line 22 of the active video is Nielsen's complaint that certain television stations are stripping the VBI in their pre-broadcast taping, editing, and playback of such programs.

23. Nielsen has consistently declined to quantify the universe of stations engaged in such stripping. From other information supplied in the record of this proceeding, however, it is apparent that that universe is limited in size. In a letter dated September 5, 1989 to the Chief of the Mass Media Bureau from the executive vice president of Paramount Pictures Corporation's Domestic Television Division ("Paramount") that was filed in support of Nielsen's position in this controversy, Paramount states that:

[t]he Network side of the A.M.O.L. system enjoys 96% accuracy, whereas syndicated national programs have had to suffer with 75% accuracy.

24. Nielsen's achievement, in the year-and-a-half since Nielsen first began to extend the AMOL service to syndicated programming, of a seventy-five percent success rate in the use of Line 20 suggests that the service offering has enjoyed broad general acceptance in a relatively short period of time. Nielsen's achievement also suggests that with more time and more work with and by the as-yet-unquantified number of stations engaged in stripping the VBI, AMOL's problems on Line 20 could be significantly if not totally alleviated. Indeed, Nielsen has shown one possible way to a solution: by installing so-called "in-station" AMOL decoders in the premises of those stations that have been stripping the AMOL codes on Line 20, Nielsen has been able to limit, and could further reduce, the number of "problem" stations.^{12/} Moreover, Nielsen's seventy-five percent success rate may be subject to further enhancement, in the case of independent television stations, were Nielsen to install a separate and dedicated decoder for each such station in a market, rather than relying upon a single decoder to scan all of the independent stations in a market. See footnote 4, above.

^{12/} Nielsen's August 21, 1989 "Reply to Opposition to Request," filed in this proceeding, states without reservation at page 4, footnote 5, that

[t]he "in-station" method of gathering line-up information is used in connection with those stations that have decided to "strip," or not to broadcast, Nielsen's SID codes.

25. Before putting the Commission to the task of resolving this proceeding, Nielsen should be obliged to come forward candidly and to explain, if explanation exists, why Nielsen cannot serve its AMOL clients on Line 20 by taking measures far less drastic than the consequences of granting Nielsen's Request. Such explanation should include, at a minimum, (i) specification of the number of stations that are currently stripping the VBI, (ii) whether the installation of in-station decoding equipment at those stations would solve the problem, and (iii) to what extent Nielsen's success in utilizing Line 20 for AMOL codes in syndicated television shows has been retarded by Nielsen's decision to use a single decoder to scan all independent stations in a market. It does not seem to be too much to ask of a company that already enjoys a *de facto* nationwide exclusivity on Line 20 to lay a reasonable factual foundation for its request to occupy a second line, particularly where that occupancy--given the unique importance of AMOL to Nielsen's role as the exclusive source of national television program ratings--threatens to dislocate the services provided by incumbent Line 22 users who sought to utilize Line 22 years ago precisely in order to avoid conflicts with AMOL.